BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation	)	ET Docket No. 93-62

Comments of the
Cellular Telecommunications Industry Association

The Cellular Telecommunications Industry Association ("CTIA") respectfully submits these comments in response to the Commission's April 8, 1993 Notice of Proposed Rulemaking ("NPRM")[1] and Order Extending Time for Comments and Reply Comments in the above-captioned proceeding.[2] CTIA is a trade association whose members provide Commercial Mobile Services, including over 95% of the licensees providing cellular service to the United States, Canada, and Mexico, and the nation's largest providers of ESMR service. CTIA's membership also includes wireless equipment manufacturers, support service providers, and others with an interest in the wireless industry. CTIA has a direct interest in the outcome of this proceeding.

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[1] In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Notice of Proposed Rulemaking, ET Docket No. 93-62, released April 8, 1993 ("Notice").

[2] By Orders dated August 4, 1993, and January 10, 1994, the Commission granted extensions of time to the National Association of Broadcasters ("NAB") and CBS, Inc., respectively, to complete studies on the appropriate compliance standards associated with the revised American National Standards Institute ("ANSI") standards.

In this docket, the Commission has proposed to update and amend the guidelines and methods used for evaluating the environmental effects of radiofrequency ("RF") radiation from FCC regulated facilities by adopting the new 1992 standards for RF exposure recently adopted by the American National Standards Institute ("ANSI") in association with the Institute of Electrical and Electronics Engineers, Inc. ("IEEE").[3] CTIA supports the Commission's proposal because the newly adopted 1992 ANSI/IEEE standards are sound and scientifically-based and provide the basis for the safe use of the vast array of radio products that increasingly are becoming commonplace.

Like the 1982 standards that are now specified in the Commission's rules,[4] the 1992 guidelines affect a wide variety of radio communication services, including common carrier land-mobile services like cellular radio. The safety of the radio-based services and facilities licensed by the FCC are vitally important to the wireless industry and the public it serves. As the Notice explains, the FCC previously adopted the 1982 ANSI/IEEE RF exposure guidelines in its rules for evaluating the environmental impact of its actions under the National Environmental Policy Act of 1969 ("NEPA") because it found that (1) "these guidelines were widely

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[3]See ANSI/IEEE C95.1-1992 (previously issued by IEEE as IEEE C95.1-1991), "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," (Sept. 26, 1991)(the "1992 Standard").

[4]See ANSI C95-.1-1982, "American National Standard Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz," cited in Notice at n.2.

accepted technically and would meet [the Commission's] needs for evaluating environmental RF radiation," and (2) the guidelines "were developed by a panel of experts based on the best scientific information available at the time concerning safe levels of exposure to RF radiation for workers and the general public." Notice at ¶¶ 2-3.

The 1992 ANSI/IEEE standard, like the 1982 ANSI/IEEE standard, is the product of a science-based, comprehensively detailed and thorough effort to update RF environmental regulations in accordance with advances in scientific developments in this field.[5] For the very same reasons the Commission set forth as the basis for adopting the 1982 ANSI/IEEE standard, CTIA supports the Commission's proposal to adopt the 1992 ANSI/IEEE guidelines for the evaluation of environmental effects of RF radiation.

The new standards are more restrictive than the 1982 version, although the IEEE Standards Coordinating Committee 28 concluded that "[n]o verified reports exist of injury to human beings or of adverse effects on the health of human beings who have been exposed to electromagnetic fields within the limits of frequency and SAR specified by previous ANSI standards, including ANSI C95.1-1982." 1992 Standard at 23. Among the proposed changes are two sets of exposure recommendations, one for "controlled environments," and the other for "uncontrolled environments."[6] Controlled

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[5]ANSI policy requires that each of its standards be reviewed at five year intervals. See 1992 Standard at 22.

[6] See Notice at ¶ 6.

environments are defined in the standard as:

> "locations where there is exposure that may be incurred by persons who are aware of the potential for exposure as a concomitant of employment, by other cognizant persons, or as the incidental result of transient passage through areas where analysis shows the exposure levels may be above those shown in Table 2 [Maximum Permissible Exposure for Uncontrolled Environments] but do not exceed those in Table 1 [Maximum Permissible Exposure for Controlled Environments], and where the induced currents may exceed the values in Table 2, Part B, but do not exceed the values in Table 1, Part B."

1992 Standard at 9.

The stricter "uncontrolled environment" exclusion applies to devices used by the general public where there is little or no control or knowledge of EMF exposure levels. CTIA supports both sets of exposure recommendations (i.e., for "controlled" and "uncontrolled" environments).

In addition, the 1992 Standard contains significant changes in allowable exclusions and power levels permitted for certain low-power devices, such as cellular radios.[7] The 1992 Standard also contains a restriction that will not permit the application of the power exclusion to hand-held devices where the radiating structure is maintained within 2.5 cm to the body.[8] Because the newly adopted 1992 ANSI/IEEE standard is the product of a scientifically-based review of all relevant peer reviewed studies, CTIA endorses its recommended exposure guidelines and principles.

The Commission has requested comment on the applicability of existing standards, other than the ANSI/IEEE 1992 Standard, in

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[7] Notice at ¶ 7.

[8] Id.

regard to its NEPA-mandated role in evaluating the health and safety effects of RF energy. CTIA supports the Commission's proposal to adopt the new 1992 ANSI/IEEE standard as the basis for evaluating the environmental effects of RF radiation. Since 1985, the Commission has relied on the ANSI/IEEE 1982 RF exposure guidelines. The 1992 Standard is based on the 1982 Standard, but incorporates the latest scientific learning; Commission adoption of the 1992 Standard would minimize transition costs and would mirror the IEEE's progress in developing RF exposure guidelines based on all relevant scientific learning on this subject, including the most recent peer-reviewed studies available at the time the IEEE Committee completed its work on the 1992 Standard.[9]

The IEEE Standards Coordinating Committee 28 includes over 120 scientists, engineers, and physicians representing IEEE's vast membership. To develop the 1992 Standard, this committee reviewed several hundred peer-reviewed studies, involving subjects as thermal regulatory systems, blood-brain barriers, calcium ion efflux, and carcinogenicity.[10] ANSI is a non-profit, privately funded organization whose broad membership, which includes industry, government and academic representatives, coordinates the development of voluntary national standards in the United States.

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[9]The ANSI/IEEE process, as noted above, includes an on-going review of all relevant scientific studies on the health and safety effects of RF. Just as the Commission has commenced this proceeding to incorporate the latest science-based standards into its rules, the FCC should anticipate the need to periodically review its rules to reflect the latest scientific learning on this subject.

[10]See 1992 Standard, Bibliography, at 35 et seq.

In publishing the IEEE's work as an ANSI standard, ANSI endorses the integrity of the IEEE standards-setting process.

The Commission also seeks comment on the procedure to be used in establishing compliance with the SAR provisions of the 1992 Standard, as incorporated into its proposed Rules, as well as on the amount of detail which should be submitted in conjunction with license applications.

CTIA believes that SAR compliance can best be accomplished by incorporating it as a requirement of the Commission's radio type acceptance process. This should not be burdensome to manufacturers, since measuring a unit's SAR is a parameter which manufacturers must measure as part of the unit's design and development cycle, and is in essence simply another characteristic of the radio. CTIA recommends that the Commission require only that the type acceptance applicant indicate affirmatively that the SAR was measured in accordance with approved procedures, and that the unit meets the Commission's requirement. It is not necessary or appropriate to require manufacturers to submit detailed data relative to this measurement since if a unit meets the applicable standard, it meets all applicable health and safety requirements. The Commission could of course, at any time, review the relevant information which support the applicant's affirmative statement, just as it is able to do with other aspects of equipment type acceptance, certification, and registration.

Conclusion

The FCC should adopt the ANSI/IEEE 1992 Standard, and complete its work in this docket without delay. Both the wireless industry and the public it serves depend on science-based health and safety standards to design and build safe and reliable radio-based communications systems.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I, Brenda K. Pennington, hereby certify that on this 25th day of January, 1994, copies of the foregoing "Comments of the Cellular Telecommunications Industry Association" were served by hand-delivery upon the following parties:

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